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I.

REMARKS ON THE OPERATION FOR THE HARE-LIP.

By Zadoc Howe, M.D., of Billerica, Mass.

Having observed that the operation for the hare-lip generally leaves more or less of the original deformity, I several years ago adopted a mode of operating a little different from that described by surgical writers upon the subject.

The improvement consists in making two curved incisions, instead of two straight ones, in such manner that the opening, when ready to be brought together, shall resemble half of a leaf of the apple tree, cut transversely, rather than the letter V, as directed by authors.

I first used this kind of incision in a cancerous affection of the under lip. The disease lay on the lower part of the lip, and a little down upon the chin; it was thought expedient to cut through the lip, for the sake of uniting the parts by the first intention: the curved incision was used at the time, rather with a view to save the destruction of sound parts, than any improvement in other cases. I was gratified with the appearance of the lip when healed, and have always adopted this mode of operating since, in the hare-lip, whenever circumstances would permit.

After the operation, the edge of the lip, instead of drawing in, will turn a little out, giving it more of a natural appearance; and as the perpendicular cicatrix will be somewhat lengthened, no notch will appear in the edge; a circumstance which is very liable to happen after this operation, performed in the usual way. In short, it leaves rather less deformity; which all will allow is an object of some importance in operations upon the face.

I suggested the substance of these remarks to the late Professor Smith, of New Haven, several years ago. He procured a small pair of curved forceps, with a screw in the handles, on the principle of those used for breaking a stone in the bladder. His intention was to fasten the instrument upon the lip, and cut by the side of the blades. How the doctor succeeded with his instrument, I never heard.

I have always cut by marks made with ink; and, in the hare-lip, always carry one interrupted suture, with a small needle, as high as possible in the nostril, that no fissure may appear when the head is elevated. One small gold pin, a little curved, together with adhesive straps, completes the dressing.

I frequently give the incision a greater degree of curvature upon one side than the other, for the sake of saving the parts—always taking care to make the sides exactly correspond in length, and withdraw the pin in about sixty hours.*—*Am. Journ. Med. Sc.*

II.

CYNANCHE TONSILLARIS, TERMINATING FATALLY BY HEMORRHAGE.

By SAMUEL WEBBER, M.D., of Charlestown, N. H.

IN the Medico-Chirurgical Review for July of the current year, I notice several cases of hemorrhage subsequent to cynanche tonsillaris, one of which proved fatal—two were barely saved by the somewhat formidable operation of tying the carotid artery, and two, after great danger and prostration, by the use of astringents combined with other treatment. These are related as unusual cases, and are in fact the first of the kind I have ever seen in print, though probably other cases have occurred, since I have myself unfortunately met with one which terminated fatally with great suddenness, and which the reading of those above mentioned has induced me to send you for insertion in the Journal.

The case occurred late in the autumn of 1825, in the person of a young woman of about eighteen years of age, who was attacked with a severe cynanche tonsillaris. Thinking that it would get better, as this complaint frequently does, with merely domestic remedies, no professional assistance was had until the third day, when I was called in. I found the throat very much swelled, so as greatly to obstruct deglutition ; any unguarded attempt to swallow being followed by severe spasmodic contraction of the fauces, and rejection of the fluid through the nostrils. The face was greatly flushed, with severe headach, and high symptomatic fever.

Free venesection was employed, succeeded by an active emetic, a mercurial cathartic, salines and antimonials, rubefacient liniments to the throat, pediluvium, and, on the next day, the febrile symptoms being somewhat mitigated, a large blister was applied to the throat, while warm and soothing gargles, and the inhalation of steam, were used, followed by acid astringent gargles. These means had the effect of relieving the extreme irritability, tenderness, and in some degree the swelling of the fauces, but did not prevent suppuration, which was evidently established on the fourth day. The abscess in the left tonsil broke on the fifth day, and that in the right, which was less swelled, a day or two later. Great complaint was made of the extremely bad smell and bad taste of the discharge ; and the relief obtained as to ease of swallowing, and the like, not being so great as is usual in such a case as this had appeared to be, the outside of the neck was carefully examined, and a small descending bag of matter was found situated in front of the thyroid cartilage, immediately beneath the skin. This was opened by the lancet, and a teaspoonful or more of extremely fetid, thin, ill-conditioned pus discharged. A probe, inserted through the opening, passed obliquely upwards and backwards towards the right tonsil, apparently just in the outside of the os hyoides. No blood was discharged except a few drops from the division of the skin. So fetid and penetrating was the odor of the pus, that it adhered to my fingers, though repeatedly washed, for several days, and to my gloves, which I put on, on my way homeward, for several weeks.

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* The preceding ingenious method of o[illegible]rating for hare-lip, lately suggested itse[illegible]o Dr. J. R. Barton, of Philadelphia, and he [illegible]ctually put it in practice, in September last, in the case of a boy in the Pennsylvania Hospital. Dr. Barton supposed the method to be original with himself.—ED.

On the next day after this, the patient seemed to be better; but early in the morning of the second day, her sister, who slept with her, observed her seemingly troubled with something in her throat, and was told, on inquiry, that some phlegm was there, which she wished to raise. Making an effort for this purpose, a small quantity was first raised and rejected; then a mouthful or two more, tinged with blood; then clear fluid blood, which immediately after burst forth from the mouth and nostrils in as large a stream as they were capable of discharging, when the unfortunate girl sank back on the bed, with the blood still flowing copiously from her mouth, and died before an effort could be made to summon assistance out of the family.

Circumstances at the time prevented an examination, though I wished for one very much, as I was extremely at a loss to account for the hemorrhage—not supposing, at the time, that suppurative inflammation of the tonsils would destroy the arteries of the part where it took place. The young woman was fond of singing, and took a prominent place among the members of our village choir,—singing oftentimes with apparently great and painful exertion. It occurred to me at the time, among other suppositions, that some aneurism might have been formed, which burst at this time under the exertion above mentioned, or that the texture of the lungs yielded, having been weakened by undue exertion. It now seems most likely that the coats of the carotid, or of some large branch, must have been injured by the abnormal suppuration, and have given way. Some very large vessel must have been needed to supply the great discharge so instantaneously ensuing.—*Ib.*

III.

MEDICAL LITERATURE.—NO. II.

For the Boston Medical and Surgical Journal.

A BRIEF examination of some of the standard works—the Classics of Medicine—will serve to elucidate more fully the opinions we have expressed.

We will commence with Dr. Good. This author has written a work in five large volumes, which we cannot but think would be much more useful, were it condensed into two. He displays an immense deal of research, a vast deal of industry, and an abundance of learning. He goes deep into the history of each disease, gives us a sufficiently large number of conjectures upon its causes, remote and proximate, and upon all other matters connected with it. He writes in a good style, and with a pleasant manner. Yet for the student to wade through the five volumes, is an intolerable labor, and a waste of time that might be much better employed. On the other hand, it is liable to equal objections as a work of reference. We go to it in a hurry—are enabled, indeed, by the nosological arrangement, to turn at once to the disease we wish to find; but the facts which we desire to know,—the diagnosis, the causes, or the usual method of treatment,—are entirely lost in the midst of opinions of Galen, Hippocrates, and Boerhaave; Hebrew, Greek, and Arabian derivations; the views taken of the disease in different countries, and the various hypotheses of writers of the present day. Instead of telling us the usual method of treatment, he tells us what the treatment ought not to be, —gives us an innumerable number of methods, and objections to all of them. If he recommend any one, we are sorry to say that it should be taken with some caution. Dr. Good, moreover, is rather credulous, and now and then tells us some pretty large stories. We would not, however, by any means, detract from the reputation of Dr. Good. It is certainly highly useful to know what have been the opinions of physicians of a former age, and what the various methods of practice have been and now are. Dr. G. deserves high honor, and the gratitude of the profession, for the labor and research which his "Study" manifests: but it does not appear to be exactly the work to put into the hands of students, or the one which we should prefer to lie on our tables for daily consultation. We think it more proper for the upper shelves of our libraries, by the side of Galen and Hippocrates. To the medical *scholar* it must be interesting, and also to the experienced physician; but for study and daily use, it is not so valuable.

All medical works are liable, in a greater or less degree, to these objections. We purposed to have considered some of the other medical classics, but our review of this one will answer our purpose. We admire the Nosological Arrangement of Dr. Good; for, though we doubt the practical utility of classifications, as respects the treatment of diseases, yet, for the convenience of study and reference, we believe them to be of the highest importance. We do not see the validity of the objections generally urged against them; for we do not think that any physician would be led to salivate for Phthisis, merely because it was placed in the same class and order with Syphilis, and both were considered diseases of the sanguineous function. If a physician should wish, at a period of leisure, to revive his medical knowledge, he will find it much more convenient to refer to a nosological table, and take up the diseases in the order in which they are there placed, than to read upon different diseases without order or method. By referring to a nosological table, also, he can, at any time, ascertain the extent of his own knowledge, and wherein his memory requires to be refreshed.

Method, brevity, perspicuity, above all, truth, should be the objects most carefully kept in view by a medical writer. Next to dishonesty or inaccuracy, a diffuse style is the greatest fault of a professional work. In all the sciences, but more particularly in medicine, "a great book is a great evil." The best example that at present occurs to us, of a medical style, is that of Dr. Gregory's Practice of Physic. The reader is astonished to find in how few words the author gives him all the information he desires upon any disease. His style is elegant and clear. He is always perfectly intelligible, and his instructions are highly practical. His work is not, indeed, perfectly complete; for several diseases are entirely omitted.

But there is one point we are most anxious to enforce. This is, that, in complete treatises,—treatises, we mean, that embrace the whole circle of diseases,—those should be treated most at large which the physician is most likely to be called upon to combat;—the student should have his attention particularly directed to the disease under the form in which it is observed, and to the manner in which it is most generally treated, in that country, and that part of the country, where the book is published. He should also be informed what are the diseases of most frequent occurrence at particular seasons of the year. If medical works are of any value, it is of the utmost importance that they should be adapted to the country they are written in. We do not think proper to have our property under the control of foreign laws, not adapted to our republican institutions;—is it not in a still higher degree preposterous, to regulate our bodily health by laws not adapted to our climate and habits?—There are, at present, very few medical works by American writers; and we do not think any great advantages are to be derived from the multiplication of books by individuals: it is but the multiplication of errors—unless, indeed, they be strictly practical works.

But publications of a Society, upon the principles I have mentioned, showing what is the practice of the present day, what are the diseases of their part of the country, and the method of treatment there pursued, would be of the highest value. It might be objected, that, by publishing such text books—by simplifying so much the Study of Medicine, we should be likely to have the practice of our profession taken out of our hands, and our patients become their own physicians. But we think there is no danger of this. Medicine, freed from all the rubbish of learning and verbiage, will still demand the study of a whole life.

A great improvement might be made in the republication of foreign works. Let a Society, as in the former case, appoint a jury, chosen from those of their number whose experience best qualifies them for the task, to pass judgment upon the works proposed to be republished. If this jury or committee do not think themselves at liberty to omit such parts of the work as are manifestly useless or erroneous, let them at least point out, in a preface or notes, what appear to them to be the errors of the author; somewhat after the manner that Dr. Rush has adopted, in his edition of the writings of Sydenham. The former course would be much the best,—to suppress altogether the parts which are not valuable; for why should a man waste his time in the study of what is useless, or much worse than useless? Works which contain a mixture of truth and error, unsettle the opinions of the student, and instil erroneous views, without his being at all aware. A student, or a young practitioner, is not qualified to judge of the respective merits of different theories and different methods of treatment. It is adviseable for him to follow the instructions he has received during his pupilage, for the first two or three years of his professional career; and until the end of this period, it would be better for him not to be perplexed by contradictory instructions. After a short period of practice, he will be qualified to judge whether there are errors in the theories and modes of treatment of his professional brethren; and then, by comparing these with those of other writers, he will be able, perhaps, to improve upon the practice of his time.

The course we have proposed could not, probably, be adopted with regard to all republications; but it might with as large a number as would give us a sufficient quantity of standard works. The same method should be pursued with regard to American works. Should physicians generally adopt the practice of keeping case-books, the Society, or their committee, might select, from all that were given them, the most valuable, for publication.

We believe that the custom of keeping case-books is becoming more common than formerly. The duty which every man owes to his profession, to advance it to the utmost that is in his power, ought to render it universal. It is not right that a man, after acquiring a vast stock of information, from a long life spent in practical duties and the possession of extensive opportunities, should go out of the world and leave nothing of all his knowledge behind him. The desire of leaving behind some memento of our existence, one would think should be quite sufficient to induce us to do this; which is, after all, no very arduous task. But, in order to make a truly valuable legacy to society, the physician should keep an honest record of his errors, as well as of his successful practice.

We think no one can deny the great advantages which would result from the course we have suggested; as it would give us standard works on each branch of Medical Science, which would be stamped by the authority of the best practitioners in the part of the country where they were published. Nor does it appear to us that the task proposed would be too arduous.

Z.

IV.

PECULIARITY IN THE ORGAN OF TASTE.

THE writer of the letter on BLACKNESS OF THE TONGUE, contained in our last number, has politely forwarded us the following

Additional Remarks.

What has been said of alarms which may arise from *black* appearances in suspicious parts of the human system, may be paralleled, perhaps, by a peculiarity in the organ of *taste*, which probably admits of as easy an interpretation.

The writer of this having had a little gout upon him, which accident had increased, resolved to employ corroborants, with exercise, as part of his cure. The family pump yielding chalybeate water, and being otherwise unpleasant to him, he had adopted, for his own personal use, the water of an adjoining running spring; which was employed for his coffee, for his milk (or cream) and water, his wine and water, his water used as common beverage, and in other forms. But, to his surprise, about this period, and *for two mornings*, the taste of this selected water, *taken alone*, seemed unpleasant to him, and as if blood had been mixed in it. This lasted, as has been said, *for two mornings*; and it then vanished. —No other explanation has offered itself than this:—During the relaxed state of the system, some *red* particles of blood may have entered into a portion of the bloodvessels of the tongue—not used to receive such red particles—and the water, being at hand, become contaminated by them. But tincture of bark, which had begun to be taken at this time, had so rapidly invigorated the system, that soon no more red particles of blood were found wandering out of their places, and the contaminated taste of the water ceased, of course.

It is for others to judge whether this may not be a *new* case where an *apparent difficulty receives an easy solution*, so as to prevent too hasty fears.

V.

NEW METHOD OF TREATING FRACTURES OF THE LOWER EXTREMITIES.

To the Editor of the Boston Med. and Surg. Journal.

Sir,—Should the subjoined communication, relative to a new method of treating fractures of the lower extremities, be thought worthy a place in your Journal, you will please insert it as soon as convenient. S. W. G.

The treatment of oblique fractures of the lower extremities, on any plan hitherto proposed, has been found radically defective, both as it respects universal success, and, more particularly, as regards the comfort and ease of the patient. It is believed that at the present day few, if any, practical and intelligent surgeons can be found, either in this country or in Europe, who would not prefer the flexed position of the limb, in the treatment of fractures of the lower extremities, to the straight one, provided any plan were devised as perfectly to confine the limb in the former as in the latter method. For what surgeon would not flex a limb to reduce a dislocation of a joint surrounded with large muscles; and who will deny that the same principles operate in the same way, in the case of fractures, or that a much greater force of extension is required to confine an oblique fracture of the os femoris, while the muscles are rendered rigid by the straight position, than when relaxed by a moderately flexed one?[*] Admitting the correctness of this principle, what apparatus has there been hitherto, in the hands of surgeons, to answer its intentions? The inconvenience, if not total inability, of making a sufficient degree of extension, has occasioned the almost entire disuse of the method of Charles Bell, and others of a similar kind. Mr. Amesbury, of London, has recently proposed an apparatus, of some complexity, to answer the desired intention; but that his invention is defective in some important particulars, I think is obvious. In the first place, the joint of the apparatus, back of the knee, does not correspond with the knee joint; consequently, changing the position of the limb or apparatus, will alter the relative length of the two. The difference will be, between an extreme flexed and straight position in a limb, of ordinary size, from one inch and a half to two inches. I believe practical men will generally disapprove of his choice of a position for counter-extension, as one likely to produce much irritation, and requiring much watchfulness to prevent the apparatus from riding over the tuberosity of the ischium; and consequently procuring a displacement of the fracture.

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[*] The able remarks contained in Cooper's Surgery, under the head of Fractures, in favor of a flexed position in the treatment of injuries of this nature, are strongly recommended to the consideration of those who are advocates for such modes of dressing as confine the limb in a straight position.

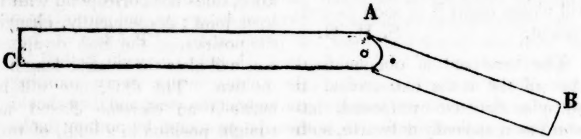
To unite the advantages of the French and English methods of practice, by making permanent extension, and at the same time preserving the flexed position, with a surety of success, and affording ease and comfort to the patient, the following plan is proposed, as the result of practical observation, with the hope that it may be found worthy a place with the many improvements of modern surgery.

The accompanying drawing represents the apparatus as differing from Desault's and the long splint of Dr. Physick, 1st, by having a circular joint at the knee, admitting a flexure of the limb, and at the same time preserving the same degree of extension; 2d, by using, when required to assist counter-extension, a short crutch, extending from the axilla to the pelvis. The advantages of the joint in the apparatus at the knee, corresponding with the joint of the limb, will readily be perceived. While the limb receives all necessary support, this method allows of a proper degree of flexure to relax the muscles, and admits of as great a degree of extension as can be made by Desault's apparatus. Believing it to be unnecessary to confine the patient to the bed, in most cases, except during the acute stage of the inflammation consequent to the injury, the short crutch is thought to be an improvement on the long splint of Dr. Physick, as it may be used equally well with the long splint, while the patient is in a recumbent position, to assist counter-extension, and may be removed whenever he wishes to sit up. I consider this, or the continued splint of Dr. Physick, of essential service in the case of oblique fractures near the upper portion of the os femoris.

Respectfully submitted, by your obedient servant,

Sam'l W. Gold.

Goshen, Ct., Feb. 23, 1831.



A, the joint at the knee, which is made circular. A plate of iron, the width of the splint, is secured in the lower portion by three copper rivets, and to the upper one by a pivot through the centre of the circle. The plate of iron is secured in the lower portion, in the same way that a saw plate is to the handle.

B, the lower end of the splint.

The whole apparatus, as recommended to be used in simple fractures of the os femoris, consists of—

1st. A piece of moistened pasteboard, to embrace the limb from the perineum to the patella.

2d. A bandage of strips applied the whole length of the limb.

3d. A buckskin gaiter, or a handkerchief, applied round the ankle.

4th. Four short splints made of light wood, hollowed; one to be fitted to the backside and another to the front part of the thigh; the remaining two, one to the back and the other to the front part of the leg. On the front and back part of the limb, light bolsters, made of three or four folds of soft flannel, extending the whole length of the limb, should be applied between the short splints and the limb.

5th. Two long bolsters, extending the whole length of the long splints.

6th. Two long splints; one on the inside of the limb, extending from near the perineum to the bottom of the foot,—the other, from the spine of the ileum to a distance of five or six inches below the foot. Both of these splints are furnished with a joint at the knee, which corresponds, in its flexure, with that of the knee joint. At the lower end of the longest splint is a piece of iron, turned at a right angle, with an aperture and screw, to make extension. The iron is made to slide on to the end of the splint, and is retained by a light fixture, so as to be easily changed from a right to a left limb, when necessary. The screw has, at the end, towards the bottom of the foot, a small eye, to receive a strap for the purpose of extension, and a nut at the other end, so constructed as to be easily turned with the thumb and finger. The upper end of the long splint may be secured to the belt around the pelvis as directed by Desault; or, which is preferred, by two ligatures passed through the belt, and two apertures at the upper end of the splint, and thus confining it on the outside of the belt.

7th. A bandage or belt, about five or six inches wide, to be secured around the pelvis, having two straps passing from the hinder to the fore part, for the purpose of counter-extension.

8th. A short crutch, to extend from the axilla to the ligatures which confine the upper end of the splint. Where the fracture is situated in the lower portion of the femur, and where muscular resistance is not strong, this part of the apparatus may be dispensed with altogether.

9th. A junk cloth, to fold around the long splints, extending from the perineum to near the heel.

10th. Seven or eight tapes, to confine the splints.

VI.

OVERSHOES FOR CHILDREN.

To the Editor of the Boston Med. and Surg. Journal.

Sir,—It is a subject of regret that there is so great a demand, in this part of the country, for children's India-rubbers; and as your Journal is probably taken by every physician in New England of any distinction, I am desirous of enlisting, through its pages, their influence against so pernicious a custom. Are not parents sensible that they cannot well do their children a greater unkindness, than thus cautiously to protect their feet from external dampness, and parboil them in perspiration? The feet of children should be well bathed in the coldest water every morning throughout the year, and they should then be protected by nothing thicker, warmer, or more impervious to water, than leather shoes. If, in wet weather, the soles of these shoes are soaked through, no injury can come of it, if the child have never been made tender and susceptible of cold by the practice I feel it a duty to discourage. On the contrary, he will run and sport about more briskly, and lay the foundation of a firmer constitution, and more vigorous and uniform good health.

I have noticed several families of children whose feet are thus habitually guarded, and find them looking puny and pale, kept at home from school oftener by colds, than other children by bad walking, and in sickness offering much less resistance to disease than those whose systems have been fortified by more hardy management. Let a child, after three or four years of age, be accustomed to reasonable exposure of every kind, and exercise as much as he will, and he will be better and happier in his early years, and grow up with a vigor of health and elasticity of mind which I have seldom seen surmounting a pair of children's India-rubbers.

Yours, most respectfully,

THE CHILDREN'S FRIEND.

MEDICAL JOURNAL.

BOSTON, MARCH 15, 1831.

PHYSIOLOGY OF RESPIRATION.

WE mentioned, in our last number, some researches of Dr. Christison, of Edinburgh, which go to prove, in opposition to the views entertained by Dr. Davy, that certain mutual actions take place between venous blood and atmospheric air out of the body, by which both become altered in their sensible and chemical characters; the former changing its color to a brighter red, and the latter, while it diminishes in volume, presenting a difference in the proportion of its constituents. We avoided, at that time, touching on the question as to the precise nature of the changes induced, and of the actions which gave rise to them; reserving these topics for separate consideration. As, however, Dr. Christison extended his inquiries to these points, and as we have accounts of similar researches, within a few months, by several eminent chemists, we deem the opportunity a fortunate one for inquiring what approaches have been made to any positive results in this intricate subject.

By examining the ingenious experiment of Dr. C., it will appear, that although the volume of the air acted on by the blood was diminished, the amount of carbonic acid gas contained in it was slightly augmented. Now, according to Dr. C., this acid was always formed at the expense of the oxygen of the original air. This, he says, appeared from the fact that its volume was either less than, or precisely equal to, that of the oxygen in the original air, diminished by that contained in the residual air, and also by the amount of absorption; which last indicated the quantity of acid which, after being formed, was absorbed by the serum of the blood. To understand this calculation, it is necessary to keep in mind that oxygen, in passing into the state of carbonic acid, suffers no change of bulk; and that the carbon it receives merely augments its specific gravity. Supposing this calculation exact, it proves only that, in place of the oxygen which had disappeared, a somewhat smaller bulk of carbonic acid was furnished to the air; and that the difference between these two amounts was absorbed, or disappeared. This fact is reconcileable with very different theories, and entirely so with that which we shall presently mention. As the blood was not analyzed, the assumption that the gas absorbed by it was carbonic acid, must be regarded, so far as this experiment was concerned, as entirely gratuitous.

According to the doctrine of La Grange, which is a modification of the theory of Lavoisier, oxygen gas is absorbed *in substance* by the blood in the lungs, and does not unite with carbon, to form carbonic acid, until this fluid has arrived at the capillary vessels. An objection to this view has been lately made by a French chemist, M. de Martigny, which makes it necessary to modify it. It is that no oxygen, as such, exists in the arterial blood. Having filled a tube 36 inches long with mercury, and reversed it so as to produce a barometric vacuum, he admitted into it about an inch of arterial blood, and left the apparatus at rest. At the end of an hour and a half, the mercury having descended considerably, the gas which had been developed was transferred into a graduated tube, and acted on by caustic potass. The whole of it was entirely absorbed, and consequently consisted of carbonic acid only.

The oxygen, therefore, which is taken up by the blood in its passage through the lungs, forms with it a union strictly chemical; one of the results of which, as respects the blood, is the change of its color to a brighter red. It has been supposed, and indeed was the most obvious explanation of the phenomena, that the gas united with the carbon of the lungs, and was at once given off as carbonic acid. This, however, as appears from other experiments, cannot be the case. Girtanner and Edwards have found that a frog, confined in hydrogen alone, gave off more than its bulk of carbonic acid in the course of a few hours. Other experiments performed by M. de Martigny, with the view of avoiding all source of fallacy, led to a similar conclusion. In these experiments, azote was substituted for hydrogen, and was renewed every two hours. For nine hours, carbonic acid was given out in considerable quantity, after which it rapidly diminished. There seemed, therefore, no reason to doubt that, for the greatest part of this period, the gas was derived solely from the blood in the lungs. It would follow, then, that the carbonic acid given off during respiration, is not formed in the lungs by the union of oxygen with the carbon of the venous blood, in its passage through the pulmonary circulation, but arrives with the venous blood in the lungs ready formed. The union of its elements must therefore take place in the capillaries; and as it is there that the color of the blood is changed, it would seem a natural inference that the oxgen is withdrawn from the coloring matter to unite with the carbon.

That free carbonic acid exists in the blood, whether venous or arterial, is a fact which was ascertained by Boyle, near two centuries ago; and Mr. Brande has remarked, that the blood of animals, when placed under the airpump, parts with the gas in such quantities as to present the appearance of effervescence. This philosopher concluded that the proportion given out by venous and arterial blood was nearly the same, each amounting, under the circumstances mentioned, to two cubic inches for every ounce of blood. M. de Martigny found that when each was collected directly from the bloodvessel in a barometric vacuum, venous blood almost always gave out twice, and, on one occasion, thrice, as much gas as the arterial. The difference between the two, in a given case, must obviously represent the amount given off by the blood in passing through the lungs.

Another point of some interest in regard to respiration is, whether all the oxygen which disappears is accounted for by the amount of carbonic acid exhaled. According to the experiments of Allen and Pepys, the amount of the two does not materially differ. Edwards found that a certain amount of oxygen was absorbed, and the experiments of M. de Martigny confirm this result. The quantity, however, appears to have varied exceedingly, being, in some cases, more than the carbonic acid produced, and, in others, not more than a tenth of this amount. A similar variety was observed by Dr. Christison, in his experiments with blood drawn from the body. The extremes, in his trials, were about one-third of an inch, and one inch and an eighth, for ten inches of blood deprived of its fibrin. Dr. C., indeed, attributes the diminished bulk of the air, in these cases, to the absorption of carbonic acid; a supposition for which he adduces no direct proof, and which, from other considerations, seems very improbable. If the carbonic acid contained in the blood should be sufficiently elastic to overcome the pressure of the atmosphere, and extricate itself under a barometric vacuum, it would seem unaccountable, that, under the circumstances mentioned by Dr. Christison, this gas should again quit the atmosphere to unite with the blood. With respect to the cause of the variety in the amount of absorption, in different experiments, it is thought, by Dr. C., to be owing to the different degrees of venosity acquired by the blood, and to be materially influenced by the rapidity of the circulation. It is difficult to conceive that any effect, produced in this way, should not extend to the amount of carbonic acid exhaled; and therefore the main question, as to the cause of the difference in the proportion of the two to each other, remains still unanswered. It is a curious fact, however, which has been repeatedly noticed, that the deepness of the color of the blood drawn in bleeding, varies greatly under different circumstances; it being sometimes so highly florid, that if any motion is communicated from a neighboring artery, the inexperienced operator might suppose that he had actually opened the artery; an impression which, while it continues, is by no means agreeable. Dr. Christison thinks that, under these circumstances, the vein has sometimes an actual pulsation derived from the heart. This idea has been suggested by others; but it seems very improbable in itself, and hardly necessary to explain the phenomenon in question.

The quantity of carbonic acid given out by the lungs, in healthy respiration, is also subject to variations which it is difficult to explain. Allen and Pepys have stated the carbonic acid of air, once respired, at about 8 per cent. Dr. Prout found it to vary from 3.3 to 4.1, and to be diminished by the use of fermented liquors. Dr. Apjohn, of Dublin, who lately repeated the experiment on himself, found the quantity to vary from 2.1 to 4.5; and Mr. Grimshaw, of the same place, found that in two of his own expirations, separated only by an interval of ten minutes, the proportion varied from 2.9 to 4.2. These gentlemen did not remark that vinous drinks exerted any perceptible influence.

With respect to the part which azote performs in respiration, considerable difference of opinion seems still to prevail. Dr. Edwards came to the conclusion that azote is sometimes absorbed, and sometimes given off, according to the season of the year. M. de Martigny has found, from trials made at different seasons, that a certain amount of azote is always given off.

Of the remaining topics pertaining to this interesting process, the most important, perhaps, is its connection with the production of animal heat. Into this branch of the subject, however, we do not, at present, propose to enter; especially as we observe that some new researches on this point, by the distinguished French chemist above mentioned, are shortly to be communicated. Should the account of these be found to contain any important facts, we shall not fail to submit them to the attention of our readers.

THE ANATOMY BILL.

The subjoined is the Anatomy Bill as it has passed through all its stages in both branches of the Legislature of this State, and received the signature of the Governor. As it is now the law of the land, we have thought that the profession would desire to possess a correct copy, which they have below.

Commonwealth of Massachusetts. In the Year of our Lord One Thousand Eight Hundred and Thirty-one.

An Act more effectually to protect the Sepulchres of the Dead, and to legalize the Study of Anatomy in certain Cases.

Sect. 1. ***Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same,*** That if any person, not being authorized by the Board of Health, Overseers of the Poor, or Selectmen, in any town of this Commonwealth, or by the Directors of the House of Industry, Overseers of the Poor, or Mayor and Aldermen, of the City of Boston, in said Commonwealth, shall knowingly or wilfully dig up, remove or convey away, or aid and assist in digging up, removing or conveying away, any human body, or the remains thereof,—such person or persons so offending, on conviction of such offence in the Supreme Judicial Court of this Commonwealth, shall be adjudged guilty of felony, and shall be punished by solitary imprisonment for a term not exceeding ten days, and by confinement afterwards to hard labor for a term not exceeding one year; or shall be punished by a fine not exceeding two thousand dollars to enure to the benefit of the Commonwealth, and by imprisonment in the common jail for a term not exceeding two years at the discretion of the Court, according to the nature and aggravation of the offence.

Sect. 2. *Be it further enacted*, That if any person shall be in any way, either before or after the fact, accessary to the commission, by any person or persons, of the offence described in the first section of this act, such person or persons shall be adjudged and taken to be principals, and shall be, on conviction in the Court aforesaid, subject to the same punishments and forfeitures as are in said first section provided.

Sect. 3. *Be it further enacted*, That from and after the passing of this act, it shall be lawful for the Board of Health, Overseers of the Poor, and Selectmen, of any town in this Commonwealth, and for the Directors of the House of Industry, Overseers of the Poor, and Mayor and Aldermen, of the City of Boston, in said Commonwealth, to surrender the dead bodies of such persons, except town paupers, as may be required to be buried at the public expense, to any regular physician, duly licensed according to the Laws of this Commonwealth—to be by said physician used for the advancement of anatomical science; preference being always given to the Medical Schools that now are or hereafter may be by law established in this Commonwealth, during such portions of the year as *such* schools, or either of them, may require subjects for the instruction of Medical Students:—*Provided always*, That no such dead body shall in any case be so surrendered, if, within thirty-six hours from the time of its death, any one or more persons, claiming to be kin, friend or acquaintance to the deceased, shall require to have said body inhumed; or, if it be made to appear to the Selectmen or Overseers of the Poor of any town in this Commonwealth, or to the Mayor and Aldermen or Overseers of the Poor of the City of Boston, that such dead body is the remains of a stranger or traveller, who suddenly died before making known who or whence he was: but said dead body shall be inhumed, and, when so inhumed, any person disinterring the same for purposes of dissection, or being accessary, as is described in the second section of this act, to such exhumation, shall be liable to the punishments and forfeitures in this act respectively provided:—*And provided further*, That every physician so receiving any such dead body, before it be lawful to deliver him the same, shall in each case give to the Mayor and Aldermen of the City of Boston, or to the Selectmen of any town of this Commonwealth, as each case may require, good and sufficient bond or bonds, that each body by him so received, shall be used only for the promotion of anatomical science; that it shall be used for such purposes only in this Commonwealth, and so as in no event to outrage the public feeling; and that, after having been so used, the remains thereof shall be decently inhumed.

Sect. 4. *Be it further enacted*, That from and after the passing of this act, it shall be lawful for any physician, duly licensed according to the Laws of this Commonwealth, or for any medical student under the authority of any such physician, to have in his possession, to use and employ, human dead bodies, or the parts thereof, for purposes of anatomical inquiry or instruction.

Sect. 5. *Be it further enacted*, That nothing in this act shall be so construed, as to give to the Board of Health, Overseers of the Poor, or Selectmen, of any town in this Commonwealth, or to the Directors of the House of Industry, Overseers of the Poor, or Mayor and Aldermen, of the City of Boston, in said Commonwealth, any power to license the digging up of any dead human body, or the remains thereof, other than was possessed by them before the passing of this act, or is given them by the third section of this act.

Sect. 6. *Be it further enacted*, That the Act passed March 2, 1815, entitled "An Act to protect the Sepulchres of the Dead," and also all other Acts, or parts of Acts, contravening the provisions of this Act, be and the same hereby are repealed.

Approved by the Governor, Feb. 28.

Effects of Mercury—Taliacotian Operation.—A case is recorded in a late periodical, in which extensive exfoliations of the bones of the palate and nose succeeded the free use of mercury. The patient had never had syphilis.—In this and two other cases, the columna nasi was restored, by Mr. Liston, by a strip of the upper lip, cut quite through and turned up. In his account of the operation, Mr. L. observes that the lateral slip, destined to form the new columna, should not be twisted round so as to present its cutaneous surface externally, but merely elevated and affixed to the point of the nose. By twisting, the chance of success is diminished, and if the part does adhere, it is thick and clumsy. The mucous membrane forming the inferior surface of the columna, retains some of its characters for a few weeks, but gradually assumes a cuticular appearance. For some time after the operation, on tickling or compressing it, the sensation is referred to the inside of the mouth. Though it might be supposed that, in a male adult, the beard on the inner surface of the new columna would prove a source of irritation, this is not the case; the hairs lose their stiff and bristly character, not being cropped frequently as before, and being constantly moistened by the mucous secretion of the nostrils. In fact, they come to resemble those hairs that grow naturally from the parts.

In the above cases, the incisions always adhered by the first intention; and I should think that if proper care be taken to place and preserve the raw surfaces in accurate contact, adhesions will always occur, little or no mark remaining. Indeed, the appearance of the upper lip will always be benefited by the operation, for when the columna is lost, the lip becomes elongated and tumid at its centre; and by a narrow slip being removed from it, this defect is obviated, whilst the cicatrix, from being in the situation of the natural depression, is scarcely observable.

In the after-treatment, it is necessary to keep the alæ tense by dossils of lint, in order to assist the columna, not yet sufficiently consolidated, in supporting the parts in their natural situation; and when the columna itself becomes tumid, a compress and bandage should be neatly applied over it.

When the cartilaginous septum is destroyed, as is generally the case, of course an aperture remains between the new columna and the osseous septum, but that is not perceived unless on close examination, and does not annoy the patient.

In a recent number of the Journal Hebdomadaire, a case is recorded, in which attempts had been made to restore a lost columna, first by M. Dupuytren, of Paris, and afterwards by M. Gensoul, of Lyons. The operation failed, and the nose became approximated to the lip. M. Dupuytren raised a *flap of integument* from the lip, and adapted it to the nose, after having *twisted it round.* Had he formed his columna from the *whole thickness of the lip,* there would have been no necessity for *twisting* it, and in all probability the operation would have proved successful.

Six cases of Smallpox were sent to the Island from this city, on Friday last.

Whole number of deaths in Boston the week ending March 5th, 23. Males, 5—Females, 18. Of consumption, 5; rheumatism, 2; quinsey, 1; inflammation on lungs, 1; dropsy on brain, 1; infantile, 3; spleen, 1; lung fever, 2; croup, 2; old age, 2; fever, 1; delirium tremens, 1; unknown, 1.

ADVERTISEMENTS.

BOYLSTON MEDICAL PRIZE QUESTIONS. The Boylston Medical Committee of Harvard University hereby give notice, that in consequence of the death of their late Chairman, Thomas Welsh, M. D. the Dissertations for the present year must be forwarded, post paid, to John C. Warren, M. D. Boston, on or before the first Wednesday of April next. GEORGE HAYWARD, Secretary.
Boston, March 3d, 1831. March 8. 2w.

NOTICE. Those gentlemen who are yet indebted for the 1st vol. of the Med. and Surg. Journal, from Feb., 1828, to Feb., 1829, are hereby notified, that, after four weeks, the Proprietors of that Volume have authorized Mr. S. Smith to collect all that is due to them for it; and the present Proprietor respectfully requests that those indebted to him for the Medical Intelligencer, and the 2d and 3d vols. of the Med. and Surg. Journal, will forward all arrears. JOHN COTTON.

The subscribers above mentioned for said 1st vol., are hereby requested to remit payment for the same to the subscriber, at the office of the Boston Daily Advertiser.
SAMUEL SMITH, Agent for said Proprietors.
March 1, 1831.

COPARTNERSHIP NOTICE. The subscribers have formed a connexion in business as CHEMISTS, DRUGGISTS & APOTHECARIES, at Apothecaries' Hall, No 188 Washington Street, opposite Marlboro' Hotel, under the firm of JARVIS & PEIRSON.
NATHAN JARVIS.
GEORGE W. PEIRSON.

EUROPEAN LEECHES.

J. & P. have a few fine European Leeches—to the application of which, when directed by Physicians, they will attend without any additional charge.
Feb. 8.

WILLIAMS ON DISEASES OF THE CHEST. This day received, by CARTER & HENDEE, "A Rational Exposition of the Physical Signs of the Diseases of the Lungs and Pleura, illustrating their Pathology and facilitating their Diagnosis." By Charles J. B. Williams. Dec. 6.

BECLARD'S GENERAL ANATOMY. CARTER, HENDEE & BABCOCK have this day received—Elements of General Anatomy, or a Description of every kind of Organ composing the Human Body. By P. A. Beclard, Professor of Anatomy of the Faculty of Medicine of Paris. Preceded by a critical and biographical Memoir of the Life and Writings of the Author. By Olivier, M.D. Translated from the French, with Notes. By Joseph Togno, M.D., Member of the Philadelphia Medical Society. Dec. 28.

SURGICAL INSTRUMENTS AND CHEMICALS. Students in want of the above articles, would do well to call, before purchasing, at BREWER & BROTHERS', Nos. 90 and 92 Washington Street—Boston. Oct. 15. ep3m

ABERCROMBIE ON DISEASES OF THE STOMACH. Just received by CARTER & HENDEE—Pathological and Practical Researches on Diseases of the Stomach, the Intestinal Canal, the Liver, and other Viscera of the Abdomen. By John Abercrombie, M.D., Fellow of the Royal College of Physicians of Edinburgh, &c., and first Physician to his Majesty in Scotland. Sept. 28.

SURGEON DENTIST'S MANUAL. Just received, by CARTER & HENDEE, The Surgeon Dentist's Anatomical and Physiological Manual. By G. Waite, Member of the Royal College of Surgeons. Nov. 2.

Published weekly, by John Cotton, at 184 Washington St. corner of Franklin St., to whom all communications must be addressed, *postpaid.*—Price three dollars per annum, if paid in advance, three dollars and a half if not paid within three months, and four dollars if not paid within the year. The postage for this is the same as for common newspapers.